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Men's Experience of a prostate biopsy has negative effects on utility: Results from the PiCTure Study

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Men's Experience of a prostate biopsy has negative effects on utility.

Results from the PiCTure Study

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Introduction

Prostate cancer incidence rates have increased due to prostate specific antigen (PSA) testing and subsequent prostate biopsy. The majority of prostate biopsies are transrectal (Figure 1), involve taking of between 6 and 12 tissue samples (cores) and last for approximately 15-30 minutes.

Our aim was to investigate men's experience of prostate biopsy, and the effect of this on their quality of life (QoL) in the weeks post-biopsy.

Methods

Men (n=811 who were 4-6 weeks post-biopsy) were given a questionnaire in 4 clinics in the Republic of Ireland (RoI) and 2 in Northern Ireland (NI). Men's biopsy experience was investigated by asking men to score eighteen survey-specific statements on a four-point Likert scale. QoL was measured using the EQ-5D-5L. Association between biopsy experience and QoL was investigated by multivariate ordinal logistic regression.

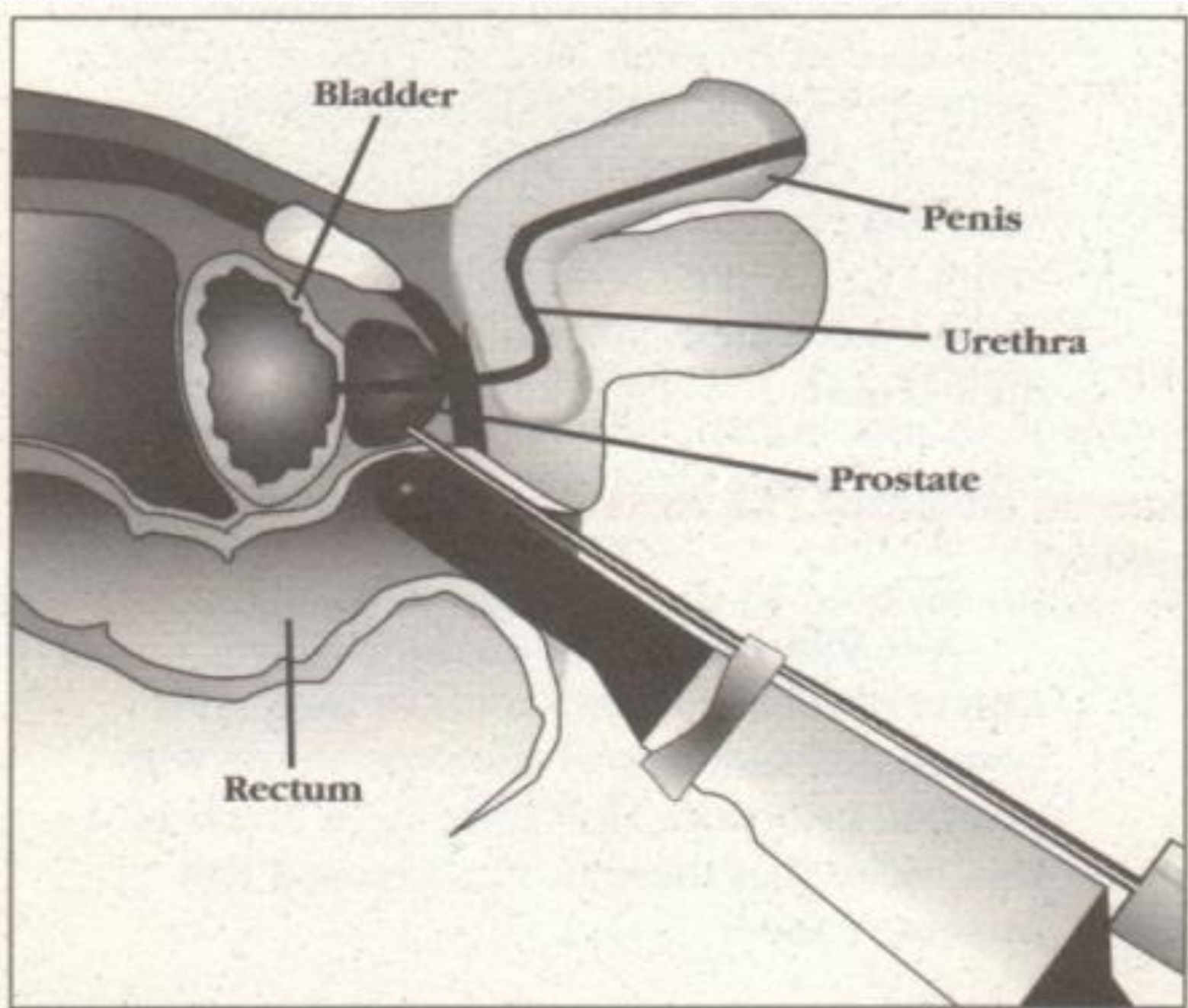


Figure 1. The prostate biopsy procedure

Results

Overall, 41% of men returned a completed questionnaire (RoI: 49% 273/561, NI: 25% 62/250). 35% were diagnosed with prostate cancer, 33% were not and 32% had either not received, or had an equivocal result at questionnaire completion.

Most respondents reported that the biopsy was necessary (90%), they were 'glad' they had it done (90%), and it made them feel 'reassured' (83%; Figure 2). However, men also described it as uncomfortable (76%), unpleasant (66%), anxiety causing (59%) and painful (53%). Men who had a benign biopsy result were more likely to describe the experience in negative terms, compared to men who were diagnosed with cancer (Figure 2).

Table 1 shows the significant associations on regressing QoL with each of the biopsy experience statements. In the multivariate analysis, adjustment was made for socio-demographics and clinical factors, most notable of these were cancer diagnosis, health anxiety and urinary retention post-biopsy. Following adjustment, men who agreed/strongly agreed that the biopsy was embarrassing, painful, stressful, and worrisome had lower QoL in the weeks post-biopsy than those who did not experience the biopsy in this way. Men who found the biopsy to be reassuring had a higher QoL post-biopsy.

Figure 2. Frequency with which men agree/strongly agree with statements about their prostate biopsy experience, grouped by biopsy result (*Significant difference between groups (p<0.05))

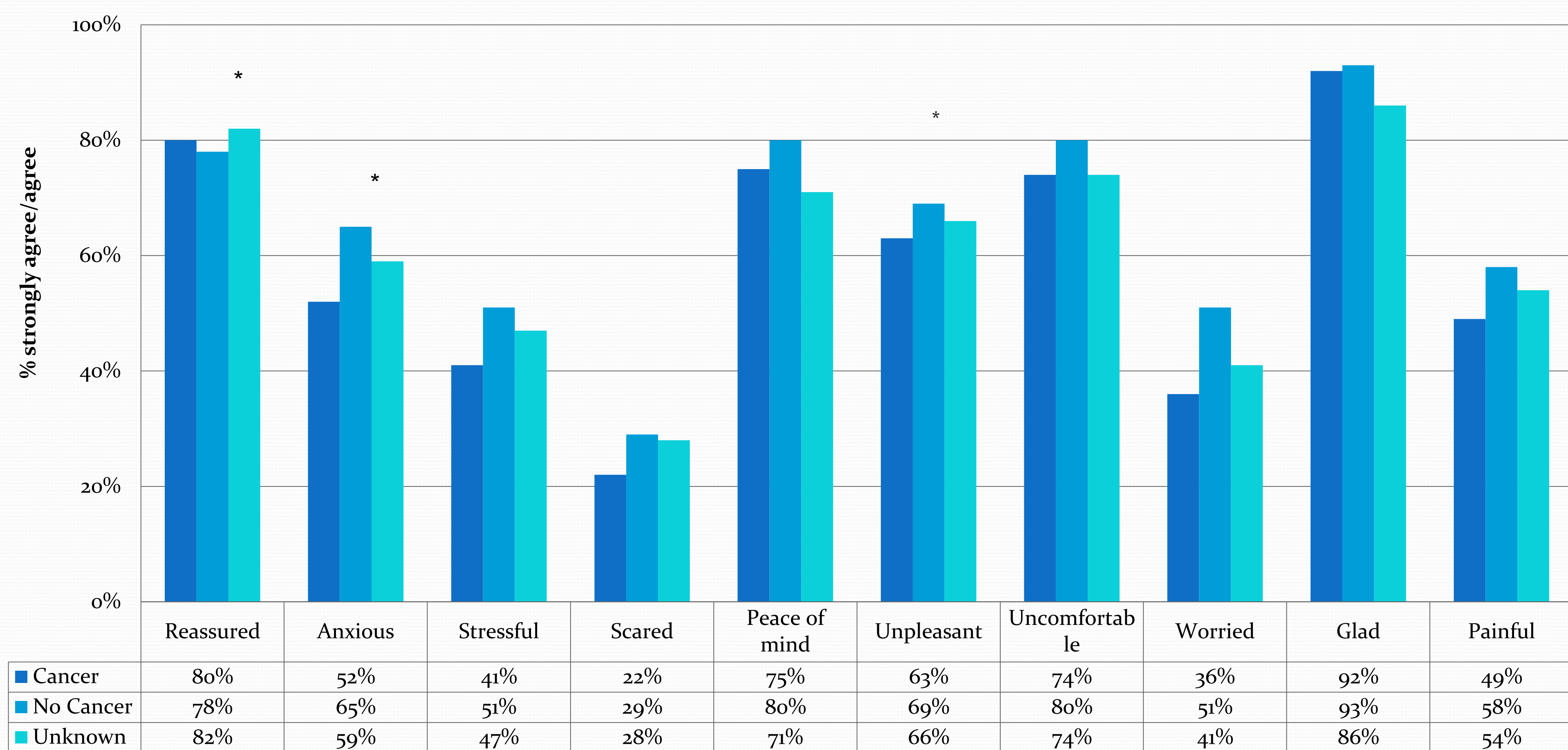


Table 1. Ordinal logistic regression analysis of factors associated with low QoL among men who underwent prostate biopsy

Characteristics		HRQoL			
		Univariate OR (95%CI)		Multivariate OR (95%CI)	
Biopsy result	No cancer	1		1	
	Cancer	2.24 (1.34,3.75)	P<0.01	1.97 (1.12,3.46)	P=0.02
	Unknown/equivocal	1.65 (0.95,2.86)	P=0.07	1.30 (0.74,2.29)	P=0.37
Biopsy experience					
Reassured	agree/strongly agree	0.33 (0.15,0.69)	P<0.01	0.30 (0.14,0.68)*	P<0.01
Embarrassing	agree/strongly agree	1.65 (1.05,2.60)	P=0.03	1.68 (1.02,2.76)*	P=0.04
Painful	agree/strongly agree	1.39 (0.88,2.18)	P=0.16	1.66 (1.03,2.67)*	P=0.04
Stressful	agree/strongly agree	1.74 (1.11,2.70)	P=0.01	1.77 (1.10,2.85)*	P=0.02
Scared	agree/strongly agree	1.81 (1.12,2.92)	P=0.02	1.74 (0.96,3.16)*	P=0.07
Exhausting	agree/strongly agree	1.71 (1.03,2.85)	P=0.04	1.71 (0.97,3.01)*	P=0.06
Worried	agree/strongly agree	1.88 (1.20,2.94)	P=0.01	1.80 (1.05,3.10)*	P=0.03
Uncomfortable	agree/strongly agree	1.75 (0.98,3.12)	P=0.06	1.72 (0.94,3.16)*	P=0.08

*Adjusted for age at biopsy, marital status, jurisdiction, health anxiety, comorbidity at biopsy, urinary/sexual symptoms pre-biopsy, side effects post-biopsy, and biopsy result. Disagree/strongly disagree was the reference group for each of the biopsy experience statements

Conclusions

Most men described the biopsy in positive terms. However, poor experiences were associated with low QoL, after adjusting for cancer diagnosis and post-biopsy symptoms experienced. Increased awareness of the effect of prostate biopsy on men among clinical teams may improve their experience and QoL post-biopsy.

Acknowledgements

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